

**We Claim:**

- 1           1.       A stable oral composition of azithromycin comprising:  
2           an azithromycin premix comprising azithromycin monohydrate and at least one  
3           additive;  
4           at least one pharmaceutically accepted excipient; and  
5           optionally, at least one taste masking agent.
- 1           2.       The composition of claim 1 wherein the additive comprises one or more of  
2           at least one binder, at least one disintegrant, at least one hydrophobic material, at least one  
3           surfactant, at least one lubricant, at least one diluent, and at least one taste masking agent.
- 1           3.       The composition of claim 2 wherein the binder comprises one or more of  
2           acacia, methylcellulose, carboxymethylcellulose, hydroxypropyl methylcellulose,  
3           hydroxypropylcellulose, polyvinylpyrrolidone, pregelatinized starch, gum tragacanth and  
4           sodium alginate.
- 1           4.       The composition of claim 2 wherein the disintegrant comprises one or more  
2           of pregelatinized starch, sodium starch glycolate, sodium carboxymethylcellulose,  
3           crosslinked sodium carboxymethylcellulose, microcrystalline cellulose, low substituted  
4           hydroxypropyl cellulose and cross-linked polyvinylpyrrolidone.
- 1           5.       The composition of claim 2 wherein the hydrophobic material comprises  
2           corn oil.
- 1           6.       The composition of claim 2 wherein the surfactant comprises one or more  
2           of polysorbates, castor oil and derivatives, and sodium lauryl sulphate.
- 1           7.       The composition of claim 2 wherein the lubricant comprises one or more of  
2           magnesium stearate, stearic acid, glyceryl behenate, polyethylene glycol, ethylene oxide  
3           polymers, sodium lauryl sulfate, magnesium lauryl sulfate, sodium oleate, sodium stearyl  
4           fumarate, talc, and colloidal silicon dioxide.
- 1           8.       The composition of claim 2 wherein the diluent comprises one or more of  
2           lactose, sucrose, dextrose, mannitol, sorbitol, starch, microcrystalline cellulose, and  
3           dibasic calcium phosphate.
- 1           9.       The composition of claim 1 wherein the taste masking agent comprises one  
2           or more of magnesium hydroxide, magnesium carbonate, sodium carbonate, sodium

3 phosphate, sodium citrate, calcium gluconate, meglumine, sodium chloride, sodium  
4 phosphate dibasic heptahydrate, sodium phosphate dibasic dihydrate, and anhydrous  
5 dibasic calcium phosphate.

1 10. The composition of claim 1 wherein the pharmaceutically accepted  
2 excipient comprises one or more of at least one binder, at least one viscosity increasing  
3 agent, at least one disintegrant, at least one surfactant, at least one diluent, at least one  
4 lubricant, at least one dispersing agent, at least one flavoring agent, and at least one  
5 sweetening agent.

1 11. The composition of claim 10 wherein the viscosity-increasing agent  
2 comprises one or more of xanthan gum, guar gum, locust bean gum, gum tragacanth,  
3 alginates, sodium carboxymethylcellulose, polyvinylpyrrolidone, hydroxypropylcellulose,  
4 and hydroxypropyl methylcellulose.

1 12. The composition of claim 10 wherein the flavoring agent comprises one or  
2 more of menthol, flavour peppermint, flavour cherry, flavour banana, and flavour fruit  
3 gum.

1 13. The composition of claim 10 wherein the sweetening agent comprises one  
2 or more of aspartame, saccharin sodium, sucralose, and acesulfam K.

1 14. The composition of claim 10 wherein the dispersing agent comprises one or  
2 more of colloidal silicon dioxide and talc.

1 15. The composition of claim 1 wherein the composition is prepared by a dry  
2 granulation method.

1 16. The composition of claim 1 wherein the composition comprises one or  
2 more of a tablet, a capsule, a powder for oral suspension, and a unit dose packet.

1 17. The composition of claim 1 wherein the composition shows an absence of  
2 azithromycin dihydrate after storage at room temperature and humidity conditions for a  
3 period of at least two months, as determined by using X ray diffraction.

1 18. The composition of claim 1 wherein the composition has at least 90%  
2 dissolution of azithromycin within 30 minutes when an amount of the composition  
3 equivalent to 200mg of azithromycin is tested according to USP-2 dissolution apparatus  
4 using 900ml sodium phosphate buffer pH 6.0, 37°C, and paddle speed of 100 rpm.

1           19.     A process for making a stable oral composition of azithromycin, the  
2 process comprising:

3           combining azithromycin monohydrate with at least one additive to form an  
4 azithromycin premix;

5           combining at least one pharmaceutically accepted excipient with the azithromycin  
6 premix; and

7           optionally, adding at least one taste masking agent.

1           20.     The process of claim 19 wherein the additive comprises one or more of at  
2 least one binder, at least one disintegrant, at least one hydrophobic material, at least one  
3 surfactant, at least one lubricant, at least one diluent, and at least one taste masking agent.

1           21.     The process of claim 20 wherein the binder comprises one or more of  
2 acacia, methylcellulose, carboxymethylcellulose, hydroxypropyl methylcellulose,  
3 hydroxypropylcellulose, polyvinylpyrrolidone, pregelatinized starch, gum tragacanth and  
4 sodium alginate.

1           22.     The process of claim 20 wherein the disintegrant comprises one or more of  
2 pregelatinized starch, sodium starch glycolate, sodium carboxymethylcellulose,  
3 crosslinked sodium carboxymethylcellulose, microcrystalline cellulose, low substituted  
4 hydroxypropyl cellulose and cross-linked polyvinylpyrrolidone.

1           23.     The process of claim 20 wherein the hydrophobic material comprises corn  
2 oil.

1           24.     The process of claim 20 wherein the surfactant comprises one or more of  
2 polysorbates, castor oil and derivatives, and sodium lauryl sulphate.

1           25.     The process of claim 20 wherein the lubricant comprises one or more of  
2 magnesium stearate, stearic acid, glyceryl behenate, polyethylene glycol, ethylene oxide  
3 polymers, sodium lauryl sulfate, magnesium lauryl sulfate, sodium oleate, sodium stearyl  
4 fumarate, talc, and colloidal silicon dioxide.

1           26.     The process of claim 20 wherein the diluent comprises one or more of  
2 lactose, sucrose, dextrose, mannitol, sorbitol, starch, microcrystalline cellulose, and  
3 dibasic calcium phosphate.

1           27.     The process of claim 20 wherein the taste masking agent comprises one or  
2 more of magnesium hydroxide, magnesium carbonate, sodium carbonate, sodium  
3 phosphate, sodium citrate, calcium gluconate, meglumine, sodium chloride, sodium  
4 phosphate dibasic heptahydrate, sodium phosphate dibasic dihydrate, and anhydrous  
5 dibasic calcium phosphate.

1           28.     The process of claim 19 wherein forming the azithromycin premix  
2 comprises mixing the azithromycin monohydrate and additive.

1           29.     The process of claim 28 wherein forming the azithromycin premix further  
2 comprises compacting.

1           30.     The process of claim 28 wherein forming the azithromycin premix further  
2 comprises granulating.

1           31.     The process of claim 19 wherein the composition has at least 90%  
2 dissolution of azithromycin within 30 minutes when an amount of the composition  
3 equivalent to 200mg of azithromycin is tested according to USP-2 dissolution apparatus  
4 using 900ml sodium phosphate buffer pH 6.0, 37°C, and paddle speed of 100 rpm.

1           32.     The process of claim 19 wherein the composition shows an absence of  
2 azithromycin dihydrate after storage at room temperature and humidity conditions for a  
3 period of at least two months, as determined by using X ray diffraction.

1           33.     A method for treating a microbial infection in a human, the method  
2 comprising administering to the human a stable oral composition of azithromycin as  
3 claimed in claim 1.